UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
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ATLANTA, GEORGIA 30303-8960

December 2, 2009

Dr. Gregory J. Thorpe, Ph.D., Manager
Project Development and Environmental Analysis Branch
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

SUBJECT: Federal Draft Environmental Impact Statement for the Elizabeth Brady Road Extension, Hillsborough, Orange County, North Carolina; TIP Project No.:U-3808; **FHW-E40829-NC; CEQ No.: 20090352**

Dear Dr. Thorpe:

The U.S. Environmental Protection Agency Region 4 (EPA) has reviewed the subject document and is commenting in accordance with Section 309 of the Clean Air Act and Section 102(2)(C) of the National Environmental Policy Act (NEPA. The North Carolina Department of Transportation (NCDOT) and the Federal Highway Administration (FHWA) are proposing to construct an approximate 3-mile, multi-lane, median divided facility from south of US 70 Business to north of US 70 Bypass at SR 1002 (Saint Mary's Road) with a possible new crossing of the Eno River.

The proposed project has been in the NEPA/Section 404 Merger 01 process beginning in June of 2001. EPA initially concurred on purpose and need on June 14, 2001. Concurrence Point 2, Detailed Study Alternatives to be Carried Forward was signed on April 15, 2004. Concurrence Point 2A, Bridging and Alignment Review was signed on November 15, 2005. As noted in the forms in Appendix A to the Draft Environmental Impact Statement (DEIS), Purpose and Need was refined and modified on February 21, 2008, and April 21, 2009. EPA concurred on these proposed modifications to the purpose and need for the project. EPA's detailed review comments on the DEIS are provided in Attachment A.

EPA has rated the three (3) build alternatives 'EC-2', Environmental Concerns with additional information being requested for the final document. EPA's environmental concerns are primarily related to project study area jurisdictional stream impacts, riparian buffer impacts, a historic property, and prime farmlands. EPA requests that further information be provided at the Merger Concurrence Point 3 Least Environmentally Damaging Practicable Alternative (LEDPA) meeting.

Based upon the our evaluation of the overall impacts to the natural and human environment, the project purpose and need, and potential new crossings of the Eno River from Alternatives 3 and 4, EPA prefers Alternative 6. However, EPA wishes to obtain input from other Merger Team agencies on potential unresolved issues such as endangered and threatened

species and the opportunities for avoidance, minimization and mitigation to certain impacted resources such as streams.

Mr. Christopher Militscher will work with you, FHWA and the other merger team agencies on the continued environmental coordination activities for this project. Please feel free to contact Mr. Militscher of my staff at (919) 856-4206 should you have specific questions concerning EPA's comments.

Sincerely,

Heinz J. Mueller, Chief
NEPA Program Office

Cc: J. Sullivan, FHWA
K. Jolly, USACE
B. Wrenn, NCDENR

Attachment: A - Detailed Comments

Attachment A
DEIS Detailed Review Comments
Elizabeth Brady Road Extension
Hillsborough, Orange County
U-3808

Purpose and Need and Detailed Study Alternatives

EPA has concurred on the general purpose and need for the proposed project including the need to reduce traffic congestion through the Hillsborough central business district (i.e., NC 86/US 70 Business) on Churchton Street. The goal is to improve traffic delay at intersections and travel time for peak period and peak direction along this central north-south route through Hillsborough. The DEIS provides detailed traffic information (e.g., Tables 2-12 and 2-13) that documents that a new route around Hillsborough will improve 2025 peak and non-peak hour travel time and 2025 peak and non-peak direction of travel. EPA notes that Alternatives 3 and 4 do not improve non-peak direction of travel at the AM-peak hour over the 'No-build' Alternative (i.e., Both Alternatives 3 and 4 are 0%). Similarly, Alternative 3 does not improve travel time savings over the 'No-build' Alternative during the PM peak hour for the eastbound travel direction (i.e., -1%). Based upon the original-destination information provided in Tables 2-14 and 2-15, it appears that all three builds alternatives provide 2025 improved travel time savings using the different choice paths (i.e., A to B, A to D, C to B, and C to D). Additional traffic analysis data is provided in Tables 2-16, 2-17, 2-18 and 2-19, which includes Intersection Delay and Delay Reduction and Annual Travel Delay at different locations and at different peak hours. Based upon these analyses, it appears that all three build Alternatives 3, 4, and 6 meet the overall purpose and need for the proposed project.

Alternatives 3 and 4 share a common northern terminus along US 70 Bypass and include a new crossing of the Eno River. Alternative 3 also requires several new location connectors to existing roadways. Alternatives 4 and 6 share a common southern alignment and terminus. Alternative 6 begins further east along US 70 Bypass but does not require a new crossing of the Eno River. Alternative 6 would also avoid the Occoneechee Speedway historic site. Alternatives 3 and 4 would require other nearby roadway improvements to St. Mary's Road, Miller Road and US 70 Bypass. All of the build alternatives would require a connector between Valley Forge Road and Cornerstone Court. Alternative 6 has the least distance of new location roadway.

Stream and Wetland Impacts

All three build alternatives have minimal impacts to jurisdictional wetlands (i.e., Alternative 3 – 0 acres; Alternative 4 – 0.02 acres and Alternative 6 – 0.05 acres). Regarding jurisdictional stream impacts, the summary description included in S.5.18 on page X does not reflect the information on pages 4-40 and 4-41 of the DEIS and in Tables 4-9 and 4-10. All three build alternatives involve multiple stream crossings and impacts to adjacent riparian buffers. Alternative 3 has the least stream impacts at 657 linear feet. Alternative 4 would have 1,416 linear feet and Alternative 6 would have 2,344 linear feet of stream impacts. Most of the

potential impacts to streams include un-named tributaries (UTs) to Cates Creek and the Eno River. Table 4-9 does not provide the areal units for riparian buffers, but EPA assumes that the data provided is in acres for both Zone 1 and Zone 2. Impacts in this table do not include any shading or vegetative removal impacts to either the Eno River or Cates Creek (Footnote #1 regarding bridging and not directly impacting the stream channel). Alternative 6 would use the existing crossing point but would require the construction of a new 2-lane bridge parallel to the existing bridge for the US 70 Bypass.

Alternative 3 would potentially cross the Eno River at an angle that is not perpendicular. The Alternative 4 Eno River crossing would be more perpendicular than Alternative 3, but the new multi-lane roadway alignment also curves somewhat substantially just south of this crossing. EPA believes that with appropriate avoidance and minimization efforts for Alternative 6 the stream impacts to UTs can be potentially reduced. The DEIS indicates that for Alternative 6 the new 240-foot bridge over the Eno River would span the entire FEMA designated floodway and the existing bridge footings currently placed in the Eno River would be removed.

Other Natural Resource Impacts

There is potentially an unresolved threatened and endangered species issue associated with impacts to streams #2S3, 3S1, 4S1, 5S1, 6S1, 7S1, 9S1, 10S1, and 11S1. The DEIS notes that additional studies for the Dwarf Wedge Mussel (*Alasmidonta heterodon*) are required for all build alternatives in the project study area. EPA defers to the U.S. Fish and Wildlife Service and the North Carolina Wildlife Resources Commission regarding this issue. EPA requests that additional information on the status of this species be available prior to the Merger Concurrence Point 3, Least Environmentally Damaging Practicable Alternative (LEDPA) meeting.

From past Merger field meetings for this proposed project, wildlife fragmentation issues are a potential issue for all three build alternatives. Section 4.4.2.1 generally addresses some of the issues associated with crossings and animal passage along the Eno River.

Human Resource Impacts

Residential and business relocations are detailed in Section 4.1.6.1 of the DEIS. Alternative 3 would require the relocation of 9 residences and 1 business. Alternative 4 would have the greatest number of relocations at 24 residences and 0 businesses. Alternative 6 has the least relocations with 3 residences and 0 businesses. None of the alternatives impact environmental justice communities, community facilities, schools, churches or parks. Alternative 3 would affect two privately owned recreational facilities, including Ayr Mount/Poet's Walk and the historic Occoneechee Speedway Trail. None of the proposed build alternatives would impact hospitals or other public facilities.

Utilizing FHWA and NCDOT noise assessment guidelines, Alternative 3 would impact 9 noise receptors, Alternative 4 would impact 7 noise receptors and Alternative 6 would impact 6 receptors. EPA notes that the written description for the 'No-build' alternative on page 4-14 of the DEIS does not correlate exactly to the information in Table 4-4 on page 4-17 (i.e., Five versus six). Also in Table 4-4, Alternative 4 data shows the total number of noise sensitive

impacted receptors as 8 (not 7). This information should be clarified in the Final Environmental Impact Statement (FEIS).

Air Quality and Mobile Source Air Toxics (MSATs)

The project is located in Orange County which is within the Raleigh-Durham-Chapel Hill non-attainment area for ozone (O_3). It is not anticipated that this project will result in non-conformity to the approved State Implementation Plan (SIP) and complies with transportation conformity and with local plans and determinations (Pages 4-21 and 4-22 of the DEIS).

EPA notes the FHWA 2006 interim guidance for MSATs on Pages 4-22 to 4-28. As previously stated by EPA from other NEPA document reviews and in comment letters, this general qualitative analysis is not project specific and potential near roadway sensitive receptors for the three build alternatives have not been identified.

Prime Farmlands

Farmland impacts are described in Section 4.2.3 of the DEIS. Table 4-6 presents the acres of potential impact (i.e., Conversion) to prime or unique farmland soils. Appendix D includes the NRCS Farmland Conversion Impact Rating forms for the 3 build alternatives. Alternative 3 scored 91 out 260 total points, Alternative 4 scored 82 out of 260 total points and Alternative 6 scored 90 out of 260 total points. Table 4-6 scoring information does not match up exactly as the information on the NRCS AD-1006 Form provided in Appendix D. Table 4-6 indicates that Alternatives 3, 4 and 6 will convert 52.2 acres, 48.4 acres and 29.7 acres, respectively. The acres in the table do not add up correctly for Alternative 6 (i.e., 24.6 acres of State and Local Important soils + 8.0 acres of Prime and Unique Farmland soils: 29.7 total acres). If the soil acreage is correct, the total for Alternative 6 should be 32.6 acres. Alternative 6 has the least amount of acreage that will be converted to other non-agricultural uses.